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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,139	12/02/2003	Daniel W. English	CDPC-P01-011	5324

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EXAMINER	
SORRELL, ERON J	
ART UNIT	**PAPER NUMBER**
2182	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/727,139	ENGLISH, DANIEL W.	
	Examiner	Art Unit	
	Eron J. Sorrell	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 February 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3,5,8, and 11 are rejected under 35 U.S.C. 101 because the claimed invention does not have a useful, concrete, tangible result. Claim 1 is directed toward a process for arbitrating between an active and protected status, however the body of claim concludes with a determination step without actually doing anything with what has been determined. (See MPEP 2106).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites limitation comprising "allowing" and "having" a card to perform a desired function. It is unclear what the applicant's intended metes and bounds of the claims are since the claim appears to cover anything and everything that does not prohibit those actions from occurring. 112 second paragraph requires the applicant to particularly point out and distinctly claim subject matter which the applicant regards as the invention. Claim 1 does not suffice that requirement the process is not differentiated between any other process that identifies cards and does not expressly prohibit the recited limitations.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4,6-14, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher et al. (U.S. Patent

No. 3,783,250) in view of Abbondanzio et al. (U.S. Patent No. 6,931,568 hereinafter "Abbondanzio").

7. Referring to method claim 1, and system claim 12, Fletcher teaches a system for arbitrating between an active state and a protected state, comprising:

a plurality of devices capable of exchanging data (see items labeled computer A - computer D and the busses connecting them in figure 1, and lines 3-6 of column 3);

a computer monitor for monitoring parameters of other computers in the system representative of operating characteristics (see lines 61-65 of column 7);

a vote out mechanism, responsive to the monitored parameters, for generating a vote signal representative of an assessment of a computers operating condition (see lines 3-7 of column 8); and

a vote tally mechanism, responsive to vote signals received from a computer in the system, and capable of changing an operational state of computer in response thereto (see lines 11-18 of column 8).

Fletcher fails to teach the "card" environment claimed by the applicant, wherein each computer module is implemented as a

card, and the plurality of cards are capable of communicating with each other.

Abbondanzio teaches, in an analogous system, computer modules implemented as cards that arbitrate between an active and protected state in the applicant's claimed environment (see lines 42-45 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the teachings Fletcher with the above teachings of Abbondanzio in order to reduce the overall physical size of the system.

8. Referring to method claim 2 and system claim 13, Fletcher teaches A the vote tally mechanism includes a processor for detecting a majority vote with vote signals received (see lines 3-18 of column 8).

9. Referring to method claim 3 and system claim 14, Fletcher as modified by Abbondanzio teaches isolation processor for isolating the card as a function of delivered votes (see 31-36 of column 12, note only the operational computers are allowed to communicate).

10. Referring to method claim 4 and 6, and system claim 18, Fletcher teaches self-diagnostic process for testing local parameters representative of local status (see paragraph bridging columns 28 and 29).

11. Referring to claim 7, Fletcher isolating a card includes disabling a hardware interface to an external system bus (see lines 29-39, wherein Fletcher teaches communication with an external system bus. If the device is or becomes disabled, it is prevented from transferring any data).

12. Referring to method claims 8 and 9, and system claim 19 and 20, Fletcher as modified by Abbondanzio teaches the self-diagnostic process includes means for altering a state of the card, wherein the self-diagnostic process includes means for driving a card into an isolation state (see paragraph bridging columns 7 and 8).

13. Referring to claim 9, Fletcher teaches the self-diagnostic test includes monitoring a heartbeat timer (see paragraph bridging columns 28 and 29).

14. Referring to claim 11, Fletcher teaches monitoring a control signal representative of an instruction to adjust between a protection state (inactive state) and an active state (see lines 30-35 of column 10).

15. Referring to claim 16, Fletcher teaches the card monitor includes means for detecting an error in a data signal received from a card (see item 257a and 257b in figure 13).

16. Referring to claim 17, Fletcher teaches a lock circuit for requiring a processor to perform a series of predetermined operations to gain access to a memory location (see lines 4-18 of column 28).

17. Referring to claim 21, Fletcher teaches isolating a card includes disabling an interface that allows the isolated card to deliver the vote representative of the isolated cards determination of the health of another one of the cards (see lines 39-50 of column 1).

18. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher in view of Abbondanzio as

applied to claims 1 and 12 above, and further in view of Beilinski et al. (U.S. Patent No. 5,123,089).

19. Referring to claims 5 and 15, Fletcher teaches making a determination of the health of a card includes identifying a parity error (see item 257a and 257b in figure 13), however the combination of Fletcher and Abbondanzio fails to teach determining the health further comprises measuring response time, identifying a check sum error, and identifying a failure to respond to a command.

Beilinski teaches, in an analogous system, determining the health of a device wherein the determination includes measuring response time, identifying a check sum error, and identifying a failure to respond to a command (see lines 46-54 of column 9).

It would have been obvious to one of ordinary skill in the art the time of the applicant's invention to modify the combination of Fletcher and Abbondanzio with the above teachings of Beilinski in order to reduce the chance of propagating different types of errors through the system.

20. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher in view of Abbondanzio as applied to claims 4 above, and further in view of Deng (US Pub No. 20010021955).

Referring to claims 22 and 23, the combination of Fletcher and Abbondanzio teach the method of claim 4 as shown above, however the combination fails to teach adding/removing a card to the plurality of cards, and preventing the addition/removal of the card from interfering with the steps of identifying a plurality of cards, allowing each card to make a determination, allowing each card to deliver, and having the respective card determine a health status adding a card to the plurality of cards, and preventing the addition of the card from interfering with the steps of identifying a plurality of cards, allowing each card to make a determination, allowing each card to deliver, and having the respective card determine a health status.

Deng teaches, in a system wherein communication cards are added and removed, the above limitation (see paragraph 48). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination

of Fletcher and Abbondanzio with the above teachings of Deng to reduce the downtime of the system as suggested by Deng.

Response to Arguments

21. Applicant's arguments filed 12/11/06 have been fully considered but they are not persuasive. The applicant argues:

1) The 101 rejection of claim 1 should be withdrawn as it has a useful, concrete, tangible result (see first full paragraph of page 9);

2) The 112 second paragraph should be withdrawn;

3) Fletcher teaches a separate modules excludes failed computers (see last paragraph of page 10);

4) The prior art fails to teach a card determines for itself whether votes from other cards indicate it is supposed to be isolated (see last paragraph of page 11). Applicant argues the same point with respect to claim 12.

22. As per argument 1, the Examiner disagrees. Claim 1 is directed toward a process for arbitrating between an active and protected status, however the body of claim concludes with a determination step without actually doing anything with what has been determined. The preamble of the claim is not accomplished as no arbitration has been carried out. Per MPEP 2106,

If USPTO personnel determine that the claim does not entail the transformation of an article, then USPTO personnel shall review the claim to determine it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, ***but rather on whether the final result achieved by the claimed invention is "useful, tangible, and concrete*** (emphasis added)."

In this case, since nothing is actually done with the determination, there is no tangible result.

23. As per argument 2, the Examiner disagrees. See paragraph 4 above for discussion.

24. As per argument 3, the Examiner disagrees. Claim 1 does not require excluding failed computers, only determining what cards are to be excluded.

25. As per argument 4, the Examiner disagrees. The claim recites, inter alia, having cards deliver to other cards a vote about its health status, then "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated." The Examiner has interpreted this to mean the representative card makes a determination of the card from which it received a vote

from about the voting cards health status. If applicant intends the claims to refer to the respective cards determine for "itself" its health based on votes, then the claims should be amended as such.

Conclusion

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EJS
March 16, 2007

KIM HUYNH
SUPERVISORY PATENT EXAMINER

3/19/07